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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,606	11/14/2001	Hisato Hirasaka	7217/65952	8408
7590 03/07/2005 COOPER & DUNHAM LLP 1185 Avenue of the Americas New York, NY 10036			EXAMINER TRAN, KHAI	
			ART UNIT 2637	PAPER NUMBER

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/992,606	<b>Applicant(s)</b> HIRASAKA, HISATO	
	<b>Examiner</b> KHAI TRAN	<b>Art Unit</b> 2637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.  
2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 10-31 is/are allowed.  
6) ☒ Claim(s) 1-3 is/are rejected.  
7) ☒ Claim(s) 4-9 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The preliminary amendment filed 3/11/2002 has been entered. Claims 1-31 are pending in this Office action.

#### ***Drawings***

2. Figures 65-67 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: Appropriate correction is required.

Regarding claim 1, line 5, the term, "said first equalization circuit" should be --said equalization circuit--.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art (see Pages 1-10 (the specification) and Figures 65-77).

Regarding claims 1, 3, the admitted prior art of the record discloses a signal-processing circuit, comprising: a phase-locked loop circuit (Fig. 72) for receiving playback data (122) resulting from analog-digital conversion (an A/D converter 124B) of a playback signal from an equalization circuit (an equalization circuit comprising a first and second equalization circuits 124 and 127), wherein the equalization circuit is composed of a transceiver filter (124C).

Regarding claim 2, the admitted prior art also discloses the equalization circuit including means for performing adaptive equalization (an adaptive equalization circuit 127A).

#### ***Allowable Subject Matter***

6. Claims 10-31 are allowed.

7. Claims 4-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the admitted prior art fails to disclose or suggest a signal processing circuit comprising: sampling frequency of the first equalization circuit is made approximately equal to a channel clock frequency; a subsequent transfer characteristic of the equalization circuit is made equal to a product of a present transfer characteristic of the

equalization circuit and present transfer characteristic of the second equalization circuit; and a subsequent transfer characteristic of the second equalization circuit is flattened; the digital signal output of the analog to digital converter is supplied to the digital phase locked loop circuit to fetch a detection voltage.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saiki et al (U.S. Pat. 5,872,666) disclose a decoder circuitry with PRML signal processing for reproducing apparatus.

Hase et al (U.S. Pat. 5,937,020) disclose a digital information signal producing circuit.

Hirasaka (U.S. Pat. 6,124,997) discloses a data reproducing apparatus.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KHAI TRAN  
Primary Examiner  
Art Unit 2637

**KT**  
**3 March 2005**